

US EPA ARCHIVE DOCUMENT

## Environmental Protection Agency

## § 147.2154

This requirement may be waived by the Regional Administrator if he determines that individual notice to all land owners of record would be impractical.

[49 FR 45308, Nov. 15, 1984]

### Subpart RR—Tennessee

#### § 147.2150 State-administered program. [Reserved]

#### § 147.2151 EPA-administered program.

(a) *Contents.* The UIC program for the State of Tennessee, including all Indian lands, is administered by EPA. This program consists of the UIC program requirements of 40 CFR parts 124, 144, 146, 148, and any additional requirements set forth in the remainder of this subpart. Injection well owners and operators, and EPA shall comply with these requirements.

(b) *Effective dates.* Effective date for the UIC program on Indian lands is November 25, 1988. The effective date for the UIC program for the rest of Tennessee is June 25, 1984.

[53 FR 43090, Oct. 25, 1988, as amended at 56 FR 9419, Mar. 6, 1991]

#### § 147.2152 Aquifer exemptions. [Reserved]

#### § 147.2153 Existing Class I, II (except enhanced recovery and hydrocarbon storage) and III wells authorized by rule.

*Maximum injection pressure.* The owner or operator shall limit injection pressure to the lesser of:

(a) A value which will not exceed the operating requirements of § 144.28(f)(3) (i) or (ii) as applicable or

(b) A value for well head pressure calculated by using the following formula:

$$P_m = (0.600 - 0.433 S_g)d$$

where:

$P_m$ =injection pressure at the well head in pounds per square inch

$S_g$ =specific gravity of inject fluid (unitless)

$d$ =injection depth in feet.

#### § 147.2154 Existing Class II enhanced recovery and hydrocarbon storage wells authorized by rule.

(a) *Maximum injection pressure.* (1) To meet the operating requirements of § 144.28(f)(3)(ii) (A) and (B) of this chapter, the owner or operator:

(i) Shall use an injection pressure no greater than the pressure established by the Regional Administrator for the field or formation in which the well is located. The Regional Administrator shall establish such a maximum pressure after notice, opportunity for comment, and opportunity for a public hearing, according to the provisions of part 124, subpart A of this chapter, and will inform owners and operators in writing of the applicable maximum pressure; or

(ii) May inject at pressures greater than those specified in paragraph (a)(1)(i) of this section for the field or formation in which he is operating, provided he submits a request in writing to the Regional Administrator and demonstrates to the satisfaction of the Regional Administrator that such injection pressure will not violate the requirement of § 144.28(f)(3)(ii) (A) and (B). The Regional Administrator may grant such a request after notice, opportunity for comment, and opportunity for a public hearing, according to the provisions of part 124, subpart A of this chapter.

(2) Prior to such time as the Regional Administrator establishes rules for maximum injection pressure based on data provided pursuant to paragraph (a)(2)(ii) of this section the owner or operator shall:

(i) Limit injection pressure to a value which will not exceed the operating requirements of § 144.28(f)(3)(ii); and

(ii) Submit data acceptable to the Regional Administrator which defines the fracture pressure of the formation in which injection is taking place. A single test may be submitted on behalf of two or more operators conducting operations in the same formation, if the Regional Administrator approves such submission. The data shall be submitted to the Regional Administrator within one year of the effective date of this regulation.

(b) *Casing and cementing.* Where the Regional Administrator determines that the owner or operator of an existing enhanced recovery or hydrocarbon storage well may not be in compliance with the requirements of §§ 144.28(e) and 146.22, the owner or operator shall comply with paragraphs (b) (1) through (4)

of this section, when required by the Regional Administrator:

(1) Protect USDWs by:

(i) Cementing surface casing by recirculating the cement to the surface from a point 50 feet below the lowermost USDW; or

(ii) Isolating all USDWs by placing cement between the outermost casing and the well bore; and

(2) Isolate any injection zones by placing sufficient cement to fill the calculated space between the casing and the well bore to a point 250 feet above the injection zone; and

(3) Use cement:

(i) Of sufficient quantity and quality to withstand the maximum operating pressure;

(ii) Which is resistant to deterioration from formation and injection fluids; and

(iii) In a quantity no less than 120% of the calculated volume necessary to cement off a zone.

(4) The Regional Administrator may specify other requirements in addition to or in lieu of the requirements set forth in paragraphs (b) (1) through (3) of this section, as needed to protect USDWs.

**§ 147.2155 Requirements for all wells—area of review.**

Notwithstanding the alternatives presented in §146.6 of this chapter, the area of review shall be a minimum fixed radius as described in §146.6(b) of this chapter.

**Subpart SS—Texas**

**§ 147.2200 State-administered program—Class I, III, IV, and V wells.**

The UIC program for Class I, III, IV, and V wells in the State of Texas, except for those wells on Indian lands, Class III brine mining wells, and certain Class V wells, is the program administered by the Texas Commission on Environmental Quality approved by EPA pursuant to section 1422 of the Safe Drinking Water Act (SDWA). Notice of the original approval for Class I, III, IV, and V wells was published in the FEDERAL REGISTER on January 6, 1982 and became effective February 7, 1982. Class V geothermal wells and wells for the *in situ* combustion of coal

are regulated by the Rail Road Commission of Texas under a separate UIC program approved by EPA and published in the FEDERAL REGISTER on April 23, 1982. A subsequent program revision application for Class I, III, IV, and V wells, not including Class III brine mining wells, was approved by the EPA pursuant to section 1422 of SDWA. Notice of this approval was published in the FEDERAL REGISTER on February 25, 2004; the effective date of these programs is March 26, 2004. The program for Class I, III, IV, and V wells, not including Class III brine mining wells, consists of the following elements as submitted to the EPA in the State's revised program applications. The UIC program for Class III brine mining wells in the State of Texas, except for those wells on Indian lands, is the program administered by the Railroad Commission of Texas. A program revision application for Class III brine mining wells was submitted by Texas and approved by EPA. Notice of that approval was published in the FEDERAL REGISTER on February 26, 2004; the effective date of this program is March 29, 2004.

(a) *Incorporation by reference.* The requirements set forth in the State statutes and regulations cited in this paragraph are hereby incorporated by reference and made part of the applicable UIC program under SDWA for the State of Texas. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the materials that are incorporated by reference in this paragraph are available at EPA Region VI, 1445 Ross Avenue, Dallas, TX 75202 or from the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(1) Texas Statutory and Regulatory Requirements Applicable to the Underground Injection Control Program for Class I, III, IV, and V Wells, except for Class III Brine Mining Wells, March 2002.